

country, reaching extremes of 111° in North Dakota and 115° in Texas.

Minimum temperatures were freezing or lower at some time during the month in all the States except a few in the extreme Southeast. The lowest reported was 7° in the mountain regions of Wyoming, and a reading as low as 38° was recorded in northern Florida.

Frosts were frequent during the month over most central and northern districts east of the Rocky Mountains and the generally cool conditions retarded the season's progress, the early advance of which, brought about by the warmth of preceding months, had been partially lost by the end.

#### PRECIPITATION

May, 1925, like the four preceding months, was greatly deficient in rainfall as compared with the normal over much of the country, and at the close many sections were suffering severely from lack of moisture. In the upper Mississippi Valley and adjacent portions of the Great Lakes region the rainfall was frequently the least of record in May, observations extending back from 50 to 75 years. Similar conditions, though less pronounced, prevailed in many parts of the cotton belt. Over much of the interior of the country the deficiencies for the three spring months have been large and the total precipitation has been the least ever known for those months, while in other cases all five months of the present year have shown marked deficiencies and the total fall from January to May, inclusive, has been less than ever before received during those months. On the other hand, in the far West, notably in California, where precipitation was greatly deficient during the earlier months of the rainy season, the falls were more generous and at points in the vicinity of San Francisco the month as a whole received the heaviest falls in May since 1849, when observations first began. Considerable damage from the unusual rainfalls so late in the season resulted to hay and some early fruits, but otherwise they were of much benefit.

In portions of Texas where drought had persisted for long periods, heavy rains brought some relief about the

end of the first decade and again at the end of the month. Also in northern Florida and adjacent sections where locally drought had existed since the middle of March some relief was afforded by occasional showers, but the deficient rainfall of preceding months caused unusually dry conditions at the end.

Considering the States as a whole only Florida, New Mexico, California, and Oregon had monthly falls in excess of the normal, all other States showing deficiencies, these being particularly large in the States bordering on the Mississippi River.

#### SNOWFALL

In California some snow fell in the higher mountains, the total falls for the month ranging up to nearly 3 feet in favorable localities, but practically all snow had melted by the end of the month.

There were moderate falls in the higher ranges of the Rockies from Colorado northward, and light falls along the northern border and over the Appalachian Mountain districts from Virginia northward. The latter falls were mainly associated with the cold period near the middle of the last decade. In parts of western Pennsylvania depths ranging from 3 to 6 inches were measured, breaking all May precedents both in amounts and lateness of occurrence. Some snow fell at the higher elevations in the vicinity of Northfield, Vt., on the 25th, the latest of record for that locality.

Snow was observed at La Crosse, Wis., on the 24th and 27th, at Port Huron, Mich., on the 24th, and at Parkersburg, W. Va., on the 25th, all the latest of record. At Seattle, Wash., snow occurred on the 2d, the only record of snow in May at that place.

#### RELATIVE HUMIDITY

As a result of the generally dry condition existing during much of the month the relative humidity was less than normal over nearly all portions of the country, the notable exceptions being the greater part of California, and locally in the middle plains, and New England, where there were slight to moderate excesses.

#### SEVERE LOCAL HAIL AND WIND STORMS, MAY, 1925

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Cleveland, Ohio	3	7.17 p. m.			\$50,000-75,000	Thunderstorm	Tower of church damaged; windows broken; 11 persons injured.	Official, United States Weather Bureau.
Terre Haute, Ind.	4	11.45 a. m.				Thunderstorm and hail.	Tomato and cabbage plants beaten; grape vines and trees injured.	Do.
Parkersburg, W. Va.	4	12.55 p. m.	880		500	Heavy hail.	Gardens and fruit trees considerably damaged.	Do.
Newton, Utah	7	1.30 p. m.				do	Path 6 miles long.	Do.
San Antonio, Tex. (vicinity of)	8	P. m.	1,760		60,000	Thunderstorm	Damage principally to alfalfa and beets. Young chickens killed. Path 6 to 7 miles long.	Do.
Tremontina, N. Mex.	9					do	Stinson Flying Field completely wrecked. Minor damage in other sections.	Do.
Kenner, La.	10	8-9 a. m.	400			Wind	100 head of cattle killed.	Do.
Cloutierville, La.	11	5.30 p. m.				Heavy hail.	Trees torn up; roof damaged; ferry boat and landing torn loose.	Do.
Quincy, Fla. (near)	12	5.30 p. m.				do	Several hundred acres of corn and cotton destroyed.	Do.
Ford and Clark Counties, Kans.	12	3-4 p. m.	6 mi.		12,000-18,000	do	Corn, cotton, and truck damaged.	Do.
Harper County, Okla. (north part of)	12	5-6 p. m.	2-10 mi.		50,000	Hail	Growing wheat damaged 25 per cent to total.	Do.
Paducah, Tex.	13	8-9 p. m.	10 mi.			Severe hail.	Great damage to crops.	Do.
Rogers, Ark. (w. and n. of)	13	4 a. m.	15-20 mi.		10,000	Hail	Light buildings, crops, and windmills damaged; path 30 miles.	Do.
Springfield, Mo. (11 miles se. of)	13	2-3 mi.				Heavy hail, wind and rain.	Orchards and gardens considerably injured.	Do.
Deaver, Wyo.	14	10 a. m.				Heavy hail.	do	Do.
	14	1.20-2 p. m.	2,640		5,000	do	Sugar beets, gardens, and alfalfa injured; irrigating canal damaged.	Do.

<sup>1</sup> mi. signifies miles instead of yards.

## Severe local hail and wind storms, May, 1925—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Haskell County, Kans.	14	6.30 p. m.	1.5-2 mi.		40,000	Hail	Damage principally to growing wheat.	Official, United States Weather Bureau.
Ford County, Kans.	14	8 p. m.			25,000-50,000	do.	do.	Do.
Lane County, Kans.	14	9 p. m.	2 mi.		100,000	do.	do.	Do.
Pawnee County, Kans.	14	12.30 a. m.	2.5 mi.		75,000-100,000	do.	do.	Do.
Chanute, Kans.	15					Violent wind	Barns unroofed, residences and garages damaged; wire service crippled.	Do.
Salt Lake City, Utah, and vicinity.	15	5.25 p. m.				Thunderstorm	Minor property damage; streets flooded.	Do.
Norman, Okla.	15	5.30-7 p. m.	1,760		250,000	Wind	Heavy property damage; crops hurt; 3 persons injured.	Do.
Byron, Ind. (near)	16					Severe wind	Many trees wrecked; buildings damaged.	Do.
Mazon, Ill. (near)	16				10,000	Wind	Farm buildings damaged.	Do.
Missouri	16				150,000	Wind, rain, and hail.	Considerable damage throughout State; Booneville and Columbia hardest hit.	Do.
Attica (near) to Pittsfield (near), Ohio.	16		25-440			Tornado	Much damage in area covered; damage at Pittsfield estimated at \$100,000. A number of persons were injured.	Do.
Arkadelphia, Ark. (4 miles se. of)	17		880			Heavy hail	All crops ruined in areas covered.	Do.
Laporte, Ind. (vicinity of)	17					Tornado	Many farm buildings wrecked.	Do.
Houghton, Mich.	19					Thunderstorm	Wires down; barn and contents burned.	Do.
Ehrhardt, S. C.	19					Severe hail	Young crops badly injured.	Do.
Mokelumne Hill, Calif.	19	5.30 p. m.	4-5 mi.			Heavy hail	Fruit trees damaged about 65 per cent; tomatoes and grapes injured.	Do.
Fresno, Calif.	19	10.15-10.20 p. m.	3,520			Moderate hail	Fruit bruised; path 15 miles long.	Do.
Hanford, Calif.	19	10.30-11 p. m.	880			Heavy hail	Minor damage reported.	Do.
Clovis, Calif.	19	11.10-11.45 p. m.	10 mi.			do.	Damage considerable in some places, severe in others.	Do.
Sioux City, Iowa, and vicinity.	19	8-9 p. m.	10 mi.		30,000	Hail and rain	Greenhouses badly damaged; some damage by flooding.	Tribune (Sioux City, Iowa).
Dawson County, Nebr.	20	P. m.	3-4 mi.			Hail	Truck, small grains, and alfalfa injured.	Official, United States Weather Bureau.
Deaver, Wyo.	20	6.20-8 p. m.			2,000	Wind	Farm buildings damaged.	Do.
Boone County, Nebr.	20	7 p. m.	880			Hail	Growing crops damaged.	Do.
Butler County, Nebr.	20	7.30 p. m.	880-1,760			do.	Crops damaged.	Do.
Dodge County, Nebr.	20	9.30-10.30 p. m.	6 mi.		17,000	do.	Crops injured; some damage to greenhouses.	Do.
Boulder, Colo.	21	3.30-4.30 p. m.		1		Wind	Telephone, telegraph, and power lines crippled.	Do.
Greeley, Colo.	21	4.30 p. m.		1		do.	Many barns and other farm buildings destroyed; electric lines seriously damaged; poultry killed, minor crop injury.	Do.
Terre Haute, Ind.	21	1.30 p. m.			1,500-2,000	Wind and hail	Some fruit bruised, small plants beaten, and much glass broken.	Do.
Crawfordsville, Ind. (w. of)	21				5,000	Tornado	Buildings in path damaged.	Do.
Southern Illinois	21	P. m.		3		Wind, rain and hail.	A number of houses damaged; communication interrupted; trees blown down.	Daily News (Chicago, Ill.).
Minnesota and South Dakota (parts of).	22	P. m.			500,000	do.	Scores of barns, houses, silos, and windmills blown down; cattle and horses killed; wires down.	Evening Huronite (Huron, S. Dak.).
Hutchinson, Kans.	23	2.30 a. m.	4 mi.			do.	Growing wheat, fruit, and gardens suffer considerably; some damage to greenhouses.	Official, United States Weather Bureau.
Essex and Passaic Counties to Bergen County, N. J.	23					Wind and hail	Damage principally to crops.	Do.
Greenwich, Conn.	23					Hail	No material damage reported.	Do.
Mount Vernon, N. Y.	23	2.50-3.10 p. m.			10,000	Moderate hail	Garden truck, hotbeds, and auto tops damaged.	Do.
Scarsdale, N. Y.	23	4 p. m.				do.	do.	Do.
Franklin, Pa.	23	4 p. m.			60,000	Severe hail and wind.	Several buildings partially wrecked; heavy damage to crops and greenhouses; 1 person injured.	Do.
Cuyahoga County, Ohio (n. part of).	23	4 p. m.				Thunderstorm and hail.	Heavy damage to crops, fruit and greenhouses.	Do.
New York City, N. Y. (vicinity of).	23	6-7.30 p. m.	20 mi.	2	250,000	High wind and heavy hail.	Trees uprooted; signs torn down, auto tops ruined; damage principally to greenhouses on north shore of Nassau County.	Do.
Bridgehampton, N. Y.	23	7 p. m.				Moderate hail	Garden truck and windows damaged.	Do.
Cutchogue, N. Y.	23	8 p. m.	1,760			do.	do.	Do.
Carlisle, Pa. (near)	23					Violent wind and thunderstorm.	Considerable minor damage to buildings.	Do.
Barbour, Taylor, Randolph, and Tucker Counties, W. Va.	24	2 p. m.		3	45,000	Destructive wind and heavy hail.	Greatest property damage at Valley Bend and Huffman; roofs, windows, and small buildings damaged; two barns destroyed.	Do.
Northern Howard and Anne Arundel Counties to southeastern Baltimore County, Md.	24	3.50-6.00 p. m.	12 mi.		75,000	Heavy hail	Greenhouses and crops damaged; other vegetation injured; traffic delayed; path 18 miles long.	Do.
Porter, N. Mex. (near)	24	6.30-7 p. m.	2 mi.			do.	Fruit and forest trees damaged; minor crop injury.	Do.
Lubbock, Tex. (vicinity of)	24		1,760			Hail	All cotton near station killed; minor damage elsewhere.	Do.
Fleming County, Ky.	24		880			Hail and wind	Crops and gardens totally destroyed by hail; 40 barns blown down; path 3 miles long.	Do.
Laramie, Wyo. (near)	26	3.30-3.45 p. m.				Tornado and hail.	No damage, as storm passed over open country.	Do.
Scotts Bluff County, Nebr.	27	2.30-4 p. m.	3 mi.			Hail	Winter wheat and alfalfa badly damaged.	Do.
Gloucester County to Ocean County, N. J.	29					do.	Some fields and cranberry bogs almost totally damaged.	Do.